NAVSTABREMINST 11300.2
CODE N444.90

NAVAL STATION BREMERTON INSTRUCTION 11300.2

From: Commanding Officer, Naval Station Bremerton

Subj: STEAM LOAD SHEDDING PLAN

Ref: (a) OPNAVINST 4100.5D, Energy Management
(b) NAVSTABREMINST 11300.1, Energy and Water Conservation Program

Encl: (1) Steam Load Shedding Plan
(2) Steam Energy Reduction Guidance

1. Purpose. To reaffirm procedures for reduction of steam consumption due to mandated steam usage requirements.

2. Cancellation. This instruction replaces NAVSHIPYDPUGETINST 11300.5B.

3. Background. Supplies of petroleum products within the U.S. are limited and costs are continuing to escalate. Our ability to generate steam, required to fulfill the Bremerton Naval complex mission, could be seriously curtailed in the event of a natural gas and fuel oil shortage, cost increases, or generating equipment casualty.

4. Policy. The Bremerton Naval complex policy is to judiciously use only that quantity of energy necessary for the effective performance of its mission. It is also the policy of the Bremerton Naval complex to support and comply with the energy conservation goals of reference (a) and policies directed by higher authority. Therefore, it is implicit in the effective management of the Bremerton Naval complex that every effort be made to achieve maximum conservation and efficient use of all energy. The Bremerton Naval complex energy conservation program is presented in reference (b).

5. Steam Generation Capabilities. The steam generation plant (Building 900) has three natural gas fired boilers capable of producing 140,000 lb/hr of 450 F steam at a pressure of 250 psi (nom), per boiler. The maximum capability of the steam generation system is approximately 280,000 lb/hr by firing two of the boilers simultaneously; the third boiler is a backup. A

back-up fuel oil supply is available to operate the boilers if the natural gas supply is curtailed for any reason.

6. Load Shedding Plan. In the event of the steam plant's ability to produce steam is curtailed, steam load shedding will be accomplished in non-critical mission buildings. Those facilities housing nuclear material, crew living spaces, crew mess spaces, manned ships (including crew barges), medical facilities, and critical steam processes will not have their steam curtailed. The following prioritizes steam use for Bremerton Naval complex facilities.

a. Priority 1 – Nuclear Facilities. Steam will be maintained to the following mission critical nuclear facilities:

Building's 368 (south end), 839, 856, 880 and 983.

b. Priority 2 – Living Spaces. Steam will be maintained to the following mission critical living and mess facilities:

Building's 865, 885, 942, 1000, 1001 and 866.

c. Priority 3 – Ships. Steam will be maintained to ships supplied with shore steam with personnel living aboard. Includes all crew living barges.

d. Priority 4 – Medical Facilities. Steam will be maintained to Building 940, Medical Clinic.

e. Priority 5 – Chemical Tanks. Steam will be maintained to chemical dip tanks in Building 873.

f. Priority 6 – Steam Driven Equipment. Steam will be secured to steam driven equipment. i.e. Forge Shop, Rubber Plant, etc.

g. Priority 7 – Building Heating Systems. Those buildings not listed above will have their space temperatures and domestic hot water reduced to minimum allowable level to prevent freezing.

h. Priority 8 – Building Cooling Systems. Steam will be secured to steam driven cooling systems.

7. Action

a. The Facilities and Maintenance Officer, Code N444, or his designated representative will, upon notification of a natural gas or oil shortage, implement enclosure (1). Enclosure (2) provides steam energy reduction guidance.

b. All Bremerton Naval complex Department Heads will:

(1) Give wide dissemination to the need for and the principles of steam conservation.

(2) Disseminate the principles of the Steam Load Shedding Plan, enclosures (1) and (2), to their subordinates.

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NAVSTABREMINST 5216.1
Lists I and II
Copy to: 1102.3, 1142.3(5), N444.12(2), N444.90(2)

STEAM LOAD SHEDDING PLAN

1. Scope

a. This plan does not include stages of increasing stringent action. The Facilities and Maintenance Officer, Code N444, shall evaluate the curtailment requirements and, in concert with Bremerton Naval complex department heads, take appropriate action to meet the mandated steam consumption curtailment.

b. In developing a strategy to cope with steam reduction requirements at the Bremerton Naval complex, the Steam Consumption Curtailment Procedures would be used as stipulated in paragraph 2 below.

2. Execution. Upon notification of curtailment requirements, the Facilities and Maintenance Officer, Code N444, shall coordinate the implementation of the following Steam Consumption Curtailment Procedures:

a. The Energy Conservation Steering Committee, established by reference (b), shall meet in order to disseminate information on the curtailment and discuss steam reduction policies/actions with Department Heads.

b. Administrative action shall be taken to monitor and manage peak load demand, time of day demand, average demand and total consumption.

c. Energy conservation policies in effect shall be enforced by inspection, reporting and other administrative means.

d. All nonessential steam loads shall be reduced and/or curtailed to the practical extent possible to correspond to the quantity of steam available without jeopardizing the Bremerton Naval complex mission. Load shedding priorities will be as established in the Load Shedding Plan of the basic instruction.

e. Enclosure (2) provides guidance on how to proceed with steam curtailment for ships, waterfront facilities and buildings.

STEAM ENERGY REDUCTION GUIDANCE

1. Steam Consumption Reduction. Steam consumption reduction is directly dependent upon seasonal requirements, i.e., the minimum steam load (summer condition) is one-third of the maximum steam load (winter condition).

2. Preferred Order of Steam Energy Reductions

a. Domestic hot water temperature reductions.

b. Energy Monitoring and Control System (EMCS) building temperature reductions.

c. Local heating system control temperature reductions.

d. Process steam usage reductions.

The above reductions shall be implemented to minimize the impact of the Bremerton Naval complex mission. Building space and domestic hot water temperatures shall be reduced so as not to allow freezing of the systems. Those buildings listed below as mission critical shall not have their steam curtailed.

3. Detailed Steam Usage. The following is provided as an indication of specific Bremerton Naval complex steam energy usage to be used for the accomplishment of mandated steam energy consumption reductions.

a. Waterfront Steam Usage

(1) Ship Hotel Steam

(a) Laundry
(b) Heating
(c) Hot Water
(d) Processes

(2) Berthing Barges

(a) Laundry
(b) Heating
(c) Hot Water

(3) Work Barges

(a) Heating
(b) Hot Water

(4) Temporary Service Buildings and Enclosures

(a) Heating
(b) Hot Water

(5) Classroom and Office Barges. Heating

(6) Waterfront Processes

(a) Steam Blanket for Barges
(b) Overhaul System Flushes
(c) Wheelers
(d) Freeze Protection
(e) Steam Generator Cleaning

b. Facility Steam Usage

STEAM HEATED BUILDINGS

Bldg No.	Computer Controlled Systems	Internal Controlled Systems	Domestic Hot Water	Process Steam
50	X		X	
58	X	X	X	
59	X	X		
86		X		
100	X			
107	X	X	X	X
210 A		X	X	
288		X	X	
289		X		
290	X	X	X	
300	X			
351		X	X	
367	X	X		
368 North	X	X		
371	X	X	X	
398		X	X	
421		X		
426	X	X		X
427	X	X	X	X
431	X	X	X	X
433	X	X	X	
435	X	X	X	X
437	X			X
438	X	X		
443	X		X	
445	X	X	X	
447		X		
448	X	X	X	X
449		X		
450	X	X	X	X
452	X	X		X
453	X	X		X
455	X	X	X	X

STEAM HEATED BUILDINGS

Bldg No.	Computer Controlled Systems	Internal Controlled Systems	Domestic Hot Water	Process Steam
456		X	X	X
457	X	X	X	X
460	X	X	X	X
461	X		X	X
462	X	X	X	
465	X			
467	X	X	X	X
469	X	X		X
480	X	X	X	
482		X		X
491	X	X	X	X
494		X	X	
495	X		X	
497		X		
500	X			X
503	X	X		
506	X		X	
513		X		X
514		X	X	
515	X	X	X	
523		X	X	
524		X		
551	X			
556	X	X		X
559	X			
579		X		
580		X		
582		X		
583		X		X
816		X		X
818		X		
819	X	X	X	
850	X	X	X	X
850 A	X	X	X	X
851	X	X	X	X
857	X	X		X
862		X		X
871	X	X		X

STEAM HEATED BUILDINGS

Bldg No.	Computer Controlled Systems	Internal Controlled Systems	Domestic Hot Water	Process Steam
872		X		X
873	X	X		
875		X		X
879	X	X		
893	X	X	X	
900	X	X	X	X
912		X		
923		X		
943	X	X	X	
970	X			
978	X	X	X	
980	X	X	X	
997	X	X		
1013		X		
1016		X		
1017		X	X	

Bldg No.	Computer Controlled Systems	Internal Controlled Systems	Domestic Hot Water	Process Steam
885	X	X		
940	X	X	X	
942	X	X	X	
983		X	X	
1000	X	X	X	
1001	X	X	X	

MISSION CRITICAL BUILDINGS

Bldg No.	Computer Controlled Systems	Internal Controlled Systems	Domestic Hot Water	Process Steam
368 South	X	X		
839		X		
856	X	X	X	X
865	X	X	X	
866				X
873				X(only)
880		X		X